

Cybersecurity (CSWG) Assessment of PAP-00

Status: Approved

Were CSWG requirements met? Yes

Comments: The NEMA Smart Grid Standards Publication SG-AMI 1-2009, *Requirements for Smart Meter Upgradeability*, adequately covers many aspects of cybersecurity as relevant to meter upgradeability. Requirements from the NEMA SG-AMI-1-2009 map to the functional security requirements included in the NISTIR 8628, *Guidelines to Smart Grid Cybersecurity*, including:

- Access control
- Audit and accountability
- Authorization
- Configuration management
- Contingency planning
- Identification and authentication
- Smart Grid information system and services acquisition
- System development and maintenance
- Smart Grid information system and communication protection

It is expected that other AMI-related standards will address more general AMI and metering security requirements, such as account management, security training, strategic planning, risk management, and cryptographic key management, which are not specifically addressed via this standard.

In a future revision, it is recommended that additional cybersecurity requirements that are directly pertinent to meter upgrades should be covered within this standard. These include:

- Physical access and environmental security for upgrades handled by local access methods.
- Maintenance of a secure, intact audit log (i.e., not modified or erased) during an upgrade; that logs the upgrade process as well as any other events that occur during the upgrade.
- Protection of timestamps and time synchronization during upgrades.
- Non-repudiation to ensure meters that were upgraded cannot claim they were not upgraded.